



DMSO

Common Syntax & Semantics Project

Supporting CMMS

CMMS Technical Working Group (TWG) Meeting
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OUTLINE

- Common Syntax and Semantics Overview
- CSS Project Goals
- Syntactical Structure: Command And Control
- Syntactical Structure: Conduct Operations
- Project Results
- CSS Web Page
- ***CSS Tool Demonstration (See: www.imcva.com/imc/)***



COMMON SYNTAX AND SEMANTICS OVERVIEW

- *CSS Version 1.0 Data Fill Has Been Completed*
- *CSS Represents A **Generic, Domain Template***
- *Syntax And Semantics Are Empirically Grounded*
- *Tool/Heuristic For KA/Domain Modelers/Simulators*

GUIDING PRINCIPALS OF PROJECT:

- ⇒ SYNTAX Is A Key Organizing Principal For Domain Modelers And Simulators
- ⇒ SYNTAX Suggests Structural Relationships Between Processes (Both Cognitive and Physical) And Entities
- ⇒ SYNTAX And SEMANTICS Must Represent Warfighters' Reality

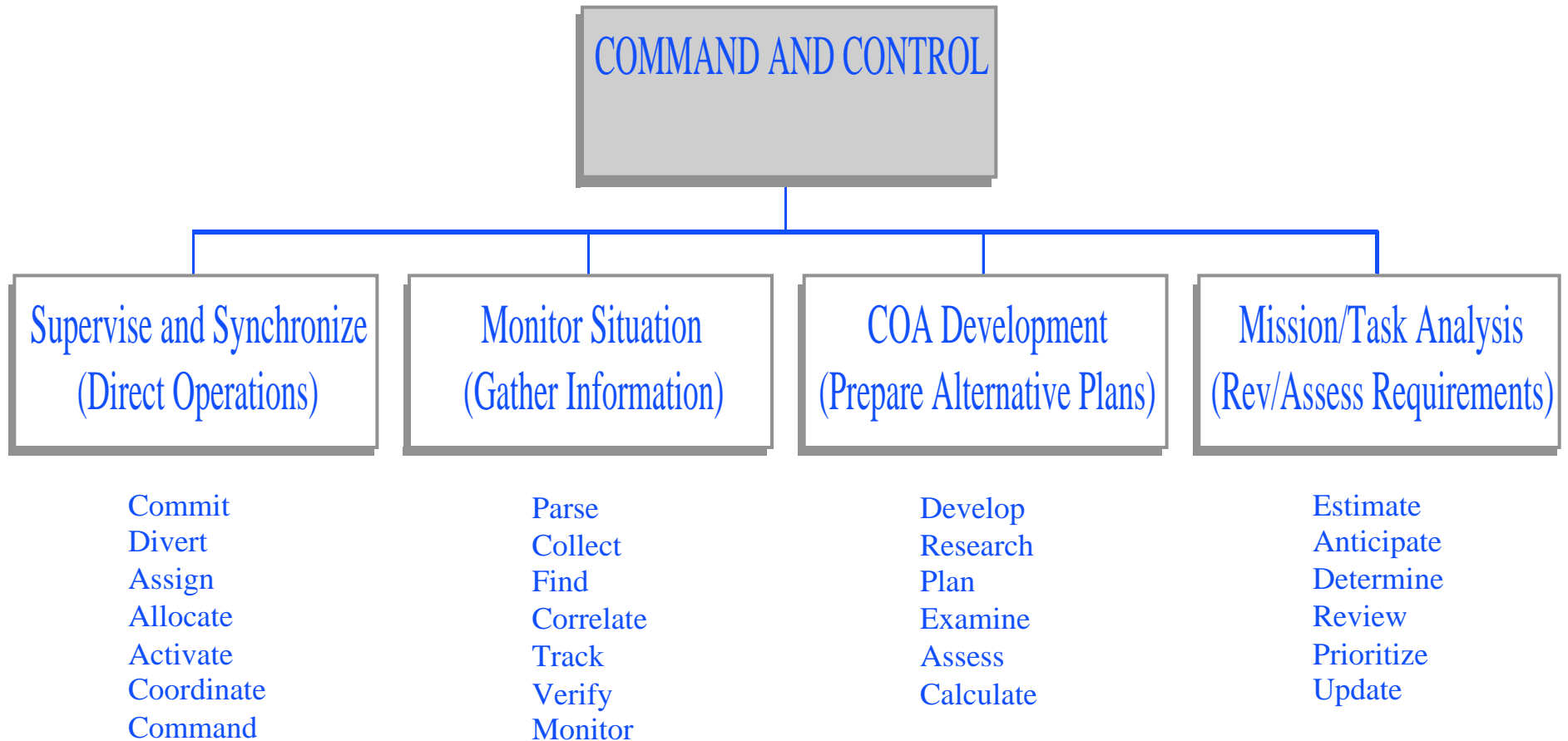


COMMON SYNTAX AND SEMANTICS PROJECT GOALS

- Help Develop And Institutionalize A Common Language (Semantics and Syntax) For Simulation Developers And Domain Modelers Based On Warfighters' Reality And Language (Use Of Authoritative Sources)
- Develop Tools That Enhance The Use Of The Common Language (Dictionary, Thesaurus)
- Begin To Conceptualize/Develop Ontological Tools And Filters That Can Be Used For Model And Simulation Development



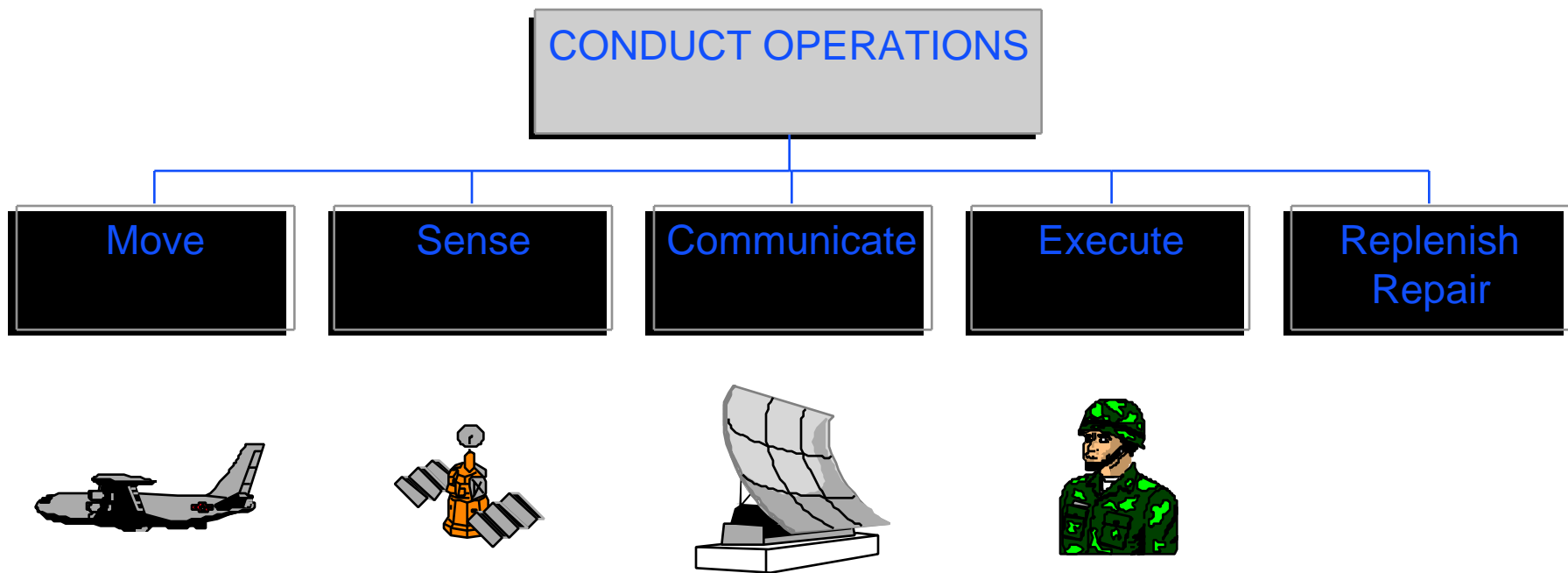
SYNTACTICAL STRUCTURE: **COMMAND AND CONTROL***



*** Basically Cognitive Processes**



SYNTACTICAL STRUCTURE: CONDUCT OPERATIONS*



* Basically Physical Processes



PROJECT RESULTS

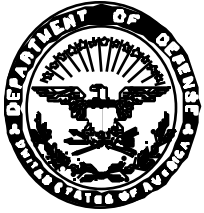
- Have Compiled 670 Processes From Authoritative Sources
JP 1-02, AFM 1-1, FM 100-5, JMTGM Approvals,
NATO Terms, JEL, UJTL, AF Domain Experts, Etc.
- Have Compiled Synonym Data (350 Synonyms)
- Have Carefully Sourced Data
- Traceability Is Key
- Assigned Definitions From Authoritative Sources



PROJECT RESULTS (CONTINUED)

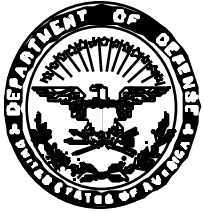
- Have Syntactically Structured The Verbs/Processes
- Have Scrubbed Data
 - Reconcile Service And Level-Of-Combat Differences
- Have Developed CSS *Access* Data Base
 - Data Input Forms
 - Report Generator
 - Search Algorithms
- Designed And Developed An IMC WWW Site For CMMS CSS Users (<http://www.imcva.com/imc/>)
 - Username: guest
 - Password: guest





CMMS CSS WEB PAGE

- Facilitate (Help Institutionalize) Use Of Common Syntax And Semantics; Use For Validation Of CSS
- Authoritative On-Line Military Dictionary/Thesaurus
 - Implications For FOMs And SOMs
- Could Eventually Serve As Structure For An Ontological Filter
 - Compile Process Inputs, Outputs, Entities And Allocations (Entity-Action-Interaction)
- Tie Or Link To Simulation Descriptions And Data Elements



CSS WEB PAGE DEVELOPMENT TOOLS

- Tools Used In Development OF CSS Web Application
 - ⇒ HTML (Main Application Language)
 - ⇒ Cold Fusion (HTML Extensions)
 - ⇒ Microsoft FrontPage (HTML Formatting)
 - ⇒ MicroGrafx Picture Publisher (2D Artwork)
 - ⇒ Caligari Pioneer Pro (3D Artwork)
 - ⇒ GIF Construction Set (Animated Artwork)
 - ⇒ Notepad (Source Code Editing)
 - ⇒ Microsoft Access (Database)
 - ⇒ Microsoft Office (Office Tools)
 - ⇒ Microsoft Windows 95 (Operating System)



CSS TOOL DEMONSTRATION

